

In the Claims:

The claims have not been amended but are included for convenient reference. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously presented) A modular shade system with solar tracking panels for use on a support surface comprising:

a series of generally North-South oriented, spaced apart torque tubes, each torque tube having an axis;

panels mounted to at least some of the torque tubes to create spaced-apart rows of panels along said torque tubes, at least some of the panels being solar collector panels;

a stationary shade structure positioned at a fixed location between selected ones of the torque tubes and above the support surface so to provide an enhanced shaded region thereunder;

a support structure comprising:

a first mounting assembly mounting each torque tube above the support surface for rotation about the axis of each said torque tube; and

a second mounting assembly supporting the shade structure at the fixed location;

and

a tilting assembly selectively rotating each torque tube about its axis.

2. (Original) The system according to claim 1 wherein the first mounting assembly comprises:

pivot connectors;

Southside supports pivotally connected to the torque tubes by the pivot connectors; and

Northside supports pivotally connected to the torque tubes by the pivot connectors.

3. (Original) The system according to claim 1 wherein the Southside and Northside supports comprise vertical posts.

4. (Original) The system according to claim 1 wherein the second mounting assembly comprises vertically extending posts supporting East-West extending shade support bars.

5. (Original) The system according to claim 1 wherein the tilting assembly comprises a drive element associated with each torque tube, a drive element coupler operably coupling each drive element, and a driver drivingly coupled to at least one drive element or drive element coupler so to simultaneously rotate the torque tubes about their associated axes and simultaneously tilt the panels mounted to the torque tubes.

6. (Original) The system according to claim 1 wherein the solar collector panels comprise a light concentrator type of solar collector panel.

7. (Original) The system according to claim 1 wherein the solar collector panels comprise a light concentrator type of photovoltaic (PV) panel.

8. (Original) The system according to claim 1 wherein the panels are modular panels.

9. (Original) The system according to claim 8 wherein the modular panels comprise light-transmissive panels.

10. (Original) The system according to claim 9 wherein the light-transmissive panels are placed adjacent to one another.

11. (Original) The shading system according to claim 8 wherein the modular panels comprise PV panels and light-transmissive panels.

12. (Previously presented) The system according to claim 1 wherein the panels comprise PV modules.

13. (Previously presented) The system according to claim 12 further comprising protective panels mounted opposite, spaced apart from and covering substantially the entire lower surfaces of the PV modules.

14. (Previously presented) The system according to claim 13 wherein the protective panels comprise at least one of sheet metal, perforated sheet metal, plastic, perforated plastic, cement board, perforated cement board, and phosphorescent material.

15. (Original) The system according to claim 13 wherein the PV modules and the protective panels are constructed to permit some light to pass therethrough.

16. (Previously presented) The system according to claim 13 wherein the protective panels have a lower protective panel surface, at least substantially the entire lower protective panel surface being convex.

17. (Original) The system according to claim 13 wherein the protective panels are perforated.

18. (Previously presented) The system according to claim 1 wherein the panels comprise phosphorescent modular panels to provide passive nighttime illumination beneath support structure.

19-32. (Canceled)

33. (Previously presented) A modular shade system with solar tracking panels comprising:

a support surface;

a series of generally North-South oriented, spaced apart torque tubes, each torque tube having an axis;

panels mounted to at least some of the torque tubes to create spaced-apart rows of panels along said torque tubes, at least some of the panels being solar collector panels;

a stationary shade structure positioned at a fixed location between selected ones of the torque tubes and above the support surface so to provide an enhanced shaded region thereunder;

a support structure comprising:

a first mounting assembly mounting each torque tube above the support surface for rotation about the axis of each said torque tube; and
a second mounting assembly supporting the shade structure at the fixed location;
and
a tilting assembly selectively rotating each torque tube about its axis.

34. (Original) The system according to claim 33 wherein the support surface comprises the ground.

35. (Original) The system according to claim 33 wherein the support surface comprises a roof.

36. (Original) The system according to claim 33 wherein the support surface comprises a vehicular parking area having parking stalls at the enhanced shaded region and the traffic regions adjacent to the parking stalls.

37. (Previously presented) The system according to claim 36 further comprising:
first, second, third, fourth and fifth of said rows of panels, and
first and second of said stationary shade structures located between the first and second rows of panels and between the fourth and fifth rows of panels, respectively.

38. (Previously presented) The system according to claim 37 wherein said rows of panels have row lengths and said stationary shade structures have structure lengths, said row lengths being about equal to the structure lengths, said row lengths and structural lengths extending parallel to one another and parallel to the support surface.

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